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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/087,198	03/01/2002	Daryl Real	5407/11328-US1	8576

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EXAMINER

JAGOE, DONNA A

ART UNIT	PAPER NUMBER
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1614

DATE MAILED: 12/18/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/087,198

Applicant(s)

REAL ET AL.

Examiner

Donna A. Jagoe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,5,8. 6) ☐ Other: .

DETAILED ACTION

Claims 1-15 are presented for examination.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 1-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Nelssen et al. (Swine Update, Spring 2001 Volume 23, No. 2).

The claims are drawn to methods of enhancing reproductive performance of a sow comprising feeding a sow during gestation, lactation, breeding and/or prebreeding l-carnitine or a salt thereof and a trivalent chromium salt and a feed supplement comprising 40 to 60 parts L-carnitine or a salt thereof, 0.5 to 4 parts of a trivalent chromium, a carrier such as silica and water.

Nelssen et al teach l-carnitine and chromium picolinate improves sow reproductive performance. L carnitine is added from 0 to 50 ppm and chromium picolinate from 0 to 200 ppm. The supplements were administered daily through the initial gestation, lactation and through a second gestation period. Both added carnitine and chromium increased the number of pigs born and born alive thus additively increasing the farrowing rate and thus the total number born alive over two parities (see summary).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over J. Arthington (#10 from IDS of paper number 3).

The claims are drawn to methods of enhancing reproductive performance of a sow comprising feeding a sow during gestation, lactation, breeding and/or prebreeding L-carnitine or a salt thereof and a trivalent chromium salt and a feed supplement comprising 40 to 60 parts L-carnitine or a salt thereof, 0.5 to 4 parts of a trivalent chromium, a carrier such as silica and water.

Arthington teaches the combination of L-carnitine and chromium picolinate for animal feed supplementation for pigs. Arthington further teaches L-carnitine to be

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useful for fat metabolism and further teaches that the capacity for endogenous synthesis is considerably restricted in neonates (page 2, paragraph 1). Because, the energy required for maintenance and optimal lean tissue gain is higher for young growing pigs, l-carnitine can increase lean gain potential by increasing the amount of energy a pig receives during this energy dependent phase of growth (page 2, paragraph 3). Arthington further teaches that chromium picolinate increases the uptake of amino acids at the cellular level, thus increasing energy for growth and amino acids available to optimize muscle development (pages 2-3). It is further stressed that the only active source of chromium is the organic trivalent form. Arthington adds that the effects of l-carnitine and chromium work synergistically together. It does not teach enhancing reproductive performance of a sow comprising feeding a sow during gestation, lactation, breeding and/or prebreeding. It would have been obvious to use chromium picolinate and l-carnitine to enhance reproductive performance of a sow during gestation, lactation, breeding and/or prebreeding by feeding said sow l-carnitine and chromium picolinate. Motivation to employ chromium picolinate and l-carnitine to enhance reproductive performance of a sow during gestation, lactation, breeding and/or prebreeding comes from the teach of Arthington that it helps young pigs increase lean gain potential by increasing the amount of energy a young pig receives during this energy dependent phase of growth.

2. Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blum et al. U.S. Patent No. 6,242,487 B1 (#8 from IDS of paper number 3) and

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Lindemann et al. (Dietary chromium tripicolinate increases sow reproductivity under commercial conditions (#17 from IDS of paper number 3).

The claims are drawn to methods of enhancing reproductive performance of a sow comprising feeding a sow during gestation, lactation, breeding and/or prebreeding l-carnitine or a salt thereof and a trivalent chromium salt and a feed supplement comprising 40 to 60 parts L-carnitine or a salt thereof, 0.5 to 4 parts of a trivalent chromium, a carrier such as silica and water.

Blum et al. teach administration of l-carnitine and its salts to sows during the period of gestation or during both gestation and lactation periods to enhance pork productivity by increasing litter and pig birth and weaning weights, reducing the number of stillborn pigs and increasing the number of pigs born alive in the subsequent reproductive cycle (the second parity of instant claim 10). Carnitine is added to the feed in an amount of from 50 to 5000 ppm (see abstract). It does not teach the addition of trivalent chromium such as chromium picolinate.

Lindemann et al. teach that chromium tripicolinate improved reproductive performance revealed by the percent of sows bred within seven days of post weaning were improved with chromium tripicolinate addition (90.6% vs 87.8%) and pigs born alive 10.42 vs 10.05 and pigs weaned per litter 9.08 vs 8.75. Reductions in sow death rate were also noted.

1. Blum does not teach administration of chromium.
2. Lindemann et al. does not teach administration of l-carnitine.

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It is prima facie obvious to combine two compositions, each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose. *In re Kerkhoven* 205 USPQ 1069. The idea for combining said compositions flows logically from their having been individually taught in the prior art. *In re Crockett* 126 USPQ 186, 188. See also *In re Shannon* 148 USPQ 504 (one step laminate is obvious from two step laminate).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna A. Jagoe whose telephone number is (703) 306-5826. The examiner can normally be reached on 8:00 A.M. - 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marianne Seidel can be reached on (703) 308-4725. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3230 for regular communications and (703) 872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

dj 
December 16, 2002


RAYMOND HENLEY, III
PRIMARY EXAMINER
GROUP 1200